



ICEC-96  
MARCH 4-8, 1996  
ROME, ITALY

***INTERNATIONAL  
CONGRESS ON  
ENVIRONMENT  
/CLIMATE***

**BOOK OF  
ABSTRACTS**

## Evaluation of sea water quality in a tourist area (Maspalomas) in the Canary islands

A. Luque and J. Pérez-Peña

Canary Islands received last year (1994) 7,6 millions of tourists, from these 2,5 millions arrived at Gran Canaria island and about an 85 % of these at the Maspalomas-Costa canaria complex (San Bartolomé de Tirajana) what it has 85.000 tourist places . The coast of San Bartolomé is 16 km long and 6 km are sandy beaches.

Beaches and coastal waters of San Bartolomé are used by tourists and residents in sport and entertainment activities during whole year (swimming, snorkeling, scuba diving, surfing, windsurfing, pedals, watermotorbikes, sailing, cruising, fishing, etc...). Also coastal water receives the discharged of about 65 % of urban deperate water (the rest is reused in garden irrigation).

Each three month analysis of the organic matter of bottoms sediments near to the effluent areas are made, and the evolution in time of the seagrasses fields at different locations is study.

The quality of coastal sea water is evaluated each months at fifteen points taken data of the parameters: Salinity, pH, oxygen, temperature, turbidity, phytoplankton, photosynthetic pigments, QOD, nitrates, nitrites, phosphates, silicates, heavy metals and detergent. Samples are taken at 5 m form surface and 10 m deep.

Microbiological controls of beaches are made each week by the sanitary authorities and the meteorological parameter are given by the Instituto Español de Meteorología through three automatic station in the area.

We have find variations in the phytoplankton communities in relation with the effluent areas and increases of inorganic nutrients and turbidity.

The regeneration of water (oxidation of organic matter) is fast and we have not find anoxic, eutrophication , sanitary or contamination problems along the coast, only there are foams some time. Foam formation is more related with the meteorological parameter than the waste water effluents.

(1) Departamento de Biología. Coworkers: L. Medina, R. Robaina, P. García-Jiménez, J. Pérez-Fernández and J.A. García-Martín.

(2) Departamento de Química. Coworkers: J. Hernandez-Brito, M. Gonzalez-Davila, M.D. Gelado-Caballero, M. Santana-Casiano, E. Torres-Padrón and V. Siruela.